

RADICAL REVIEW

Memorize!

n	n^2
1	1
2	4
3	9
4	16
5	25
6	36
7	49
8	64

n	n^2
9	81
10	100
11	121
12	144
13	169
14	196
15	225
16	256

n	n^2
17	289
18	324
19	361
20	400
21	441
22	484
23	529
24	576
25	625

EXAMPLES: Find the value of each of the following PERFECT SQUARE ROOTS.

1) $\sqrt{25} =$ _____

2) $\sqrt{169} =$ _____

3) $2\sqrt{144} =$ _____

When you find the square root of a number that is not a perfect square, you have an irrational square root. Irrational square roots can be SIMPLIFIED by using factor trees.

*****Multiply factor pairs by the number outside of the radical.*****

EXAMPLES: Simplify.

4) $\sqrt{63} =$ _____

5) $\sqrt{48} =$ _____

6) $2\sqrt{72} =$ _____

MULTIPLYING RADICALS: “Inside x Inside” & “Outside x Outside”

7) $\sqrt{5} \cdot \sqrt{6} =$ _____	8) $\sqrt{3} \cdot \sqrt{8} =$ _____
9) $5\sqrt{7} \cdot 6\sqrt{2} =$ _____	10) $(\sqrt{5})^2 =$ _____

SQUARING RADICALS

11) $(\sqrt{591})^2 =$ _____	12) $(2\sqrt{5})^2 =$ _____
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DIVIDING RADICALS: “Inside ÷ Inside” & “Outside ÷ Outside”

13) $\frac{\sqrt{21}}{\sqrt{3}} =$ _____	14) $\frac{\sqrt{40}}{\sqrt{5}} =$ _____
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TOP & BOTTOM BOTH NOT RADICAL? – Multiply by RECIPROCAL or just simply....

“SHOVE IT & LEAVE IT”

15) $\frac{7}{\sqrt{3}} =$ _____	16) $\frac{12}{\sqrt{2}} =$ _____
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